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PETROLEUM INDUSTRY

OPPORTUNITIES IN GUATEMALA

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CANADIAN EMBASSY
Guatemala - Trade Section

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PETROLEUM INDUSTRY OPPORTUNITIES IN GUATEMALA

INTRODUCTION

The objective of this document is to advise Canadian companies of the investment opportunities that Guatemala has to offer in the petroleum sector, highlighting aspects of legislation as well as investment recovery.

The increase in seismic and geological information that Guatemala has accumulated lately allows for an increased level of success in petroleum exploration, which coupled with an increase in basic infrastructure and the experience acquired in the administration of the hydrocarbons law, make it more attractive for foreign investment.

1. COUNTRY'S BACKGROUND

Guatemala, in Central America, with 98000 Km^2, borders Mexico to the north and west, the Pacific Ocean to the south, Belize, the Caribbean, Honduras and El Salvador to the East.

Guatemala's geographical location is two hours away by plane from Houston and it has port and maritime facilities in the Atlantic and Pacific coasts. Guatemala city is located 300 Km. from the Atlantic coast and 100 km. from the Pacific coast. Basic infrastructure is available that allows for proper management and

handling of any petroleum activity. Previous developments in this sector allow for the recruitment of local technicians and specialists such as drilling operators and petroleum engineers. The currency is the Quetzal and up to November of 1991 its value was US$1.00 = Q5.00. The country enjoys a temperate climate all year round with a dry season from November to April and a rainy season the rest of the year.

2. EXPLORATION ACTIVITY

Exploratory activities

They began in 1924 with geological and geophysical work in Guatemala's northern area an continued until 1949. There was a recess in activity that lasted until 1955. Between 1958 and 1962 several companies undertook geological and geophysical investigations and in 1958 the first exploratory well was drilled in the northern department of Izabal.

During the decade of the 60's exploratory activity was very limited. It was reactivated in 1972 when the company Recursos del Norte explored the Tortugas saline deposit in Alta Verapaz in search of sulphur and they discovered oil, proving the presence of hydrocarbons in Guatemala's subsoil.

Afterward, Shenandoah, an American company associated with Basic Resources and Saga Petroleum undertook exploration activities in the departments of El Quiché, Alta Verapaz and El

Petén. These activities which took place between 1973 and 1978 resulted in the discovery of the Rubelsanto and Chinajá Oeste petroleum fields in Alta Verapaz. These companies developed the Rubelsanto field, drilling additional wells from 1978 to 1980. They drilled development wells in the Chinajá Oeste field and they established the basic infrastructure to allow commercial exploitation of the area's petroleum. These developments set off the commercial hydrocarbons production in Guatemala.

Several Canadian companies have been involved in the development of the petroleum industry in Guatemala. Their participation in the formulation of the present hydrocarbons law, the drilling of wells and the construction supervision of a pipeline, has made Canadian technology and experience in this sector well known in Guatemala.

Some of the Canadian companies that have been active in Guatemala are the following:

- Van Meurs and Associates (Hydrocarbon's Law formulation)
- Petrotech-Lavalin (Pipeline Design and Construction Supervision)
- Bawden Drilling (Well Drilling)
- D. B. Pipetech (Feasibility Studies)
- Canuck Engineering (Pipeline Feasibility Studies)

Present Situation

Four petroleum operation contracts are presently active: Contract 1-85 with Basic Resources; Contract 2-85 with Basic Resources; Contract 1-88 with Pam Petroleum and contract 1-90 with Shell Exploration.

Of all these contracts, only 1-85 and 2-85 are producing petroleum. Contract 1-85 includes four fields: Rubelsanto, Chinajá, Caribe and Tierra Blanca, produce approximately 3200/bpd. Contract 2-85 encompasses the Xan field and produces 2000/bpd with two wells. Present production adds up to approximately 5200/bpd.

Contract 1-88 is about to initiate production in the Yalpemech field where two wells have been drilled. One of them, Yalpemech 1, previously produced 33.7° API oil. The second one, the Chocop well will produce petroleum in 1992.

Contract 1-90 is in the exploration stage, and it is estimated that they will drill the first well in 1993.

With these four contracts, it is expected that the country's petroleum production will be increased to 7000 or 8000/ bpd by the end of 1992.

3. *GEOLOGICAL INFORMATION*

Four sedimentary basins are known: Petén Norte or Paso Caballos, Petén Sur or Chapayal, Amatique and Pacific. The Petén basin is the most documented because it is where most seismic and drilling activity has taken place. It is divided into the Chapayal basin which is located at the southern part of the La Libertad Arch (see maps after page 6), and the producing horizon is denominated Cobán C and its depth is between 8 and 10 thousand feet. Here we find oil with API gravity between 22° and 39°. Tectonism is almost nonexistent allowing for structures to be very soft.

The other part of the Petén basin is formed by the Paso Caballos basin which is located north of the La Libertad Arch and its producing horizon is called Cobán B8 and it produces oil with gravity between 11° and 17° API. Tectonism in this sector is stronger. Both basins are naturally fractured carboniferous formations.

In general terms it can be said that drilling costs in the Paso Caballos basin are lower because there are fewer drilling problems; on the other hand, because of its remote geographical location, there are fewer logistical facilities which makes it necessary to implement a larger infrastructure. In the Chapayal basin, perforation costs tend to be higher due to the geological problems that may be found because the producing horizon is deeper, but more communication facilities and infrastructure exists.

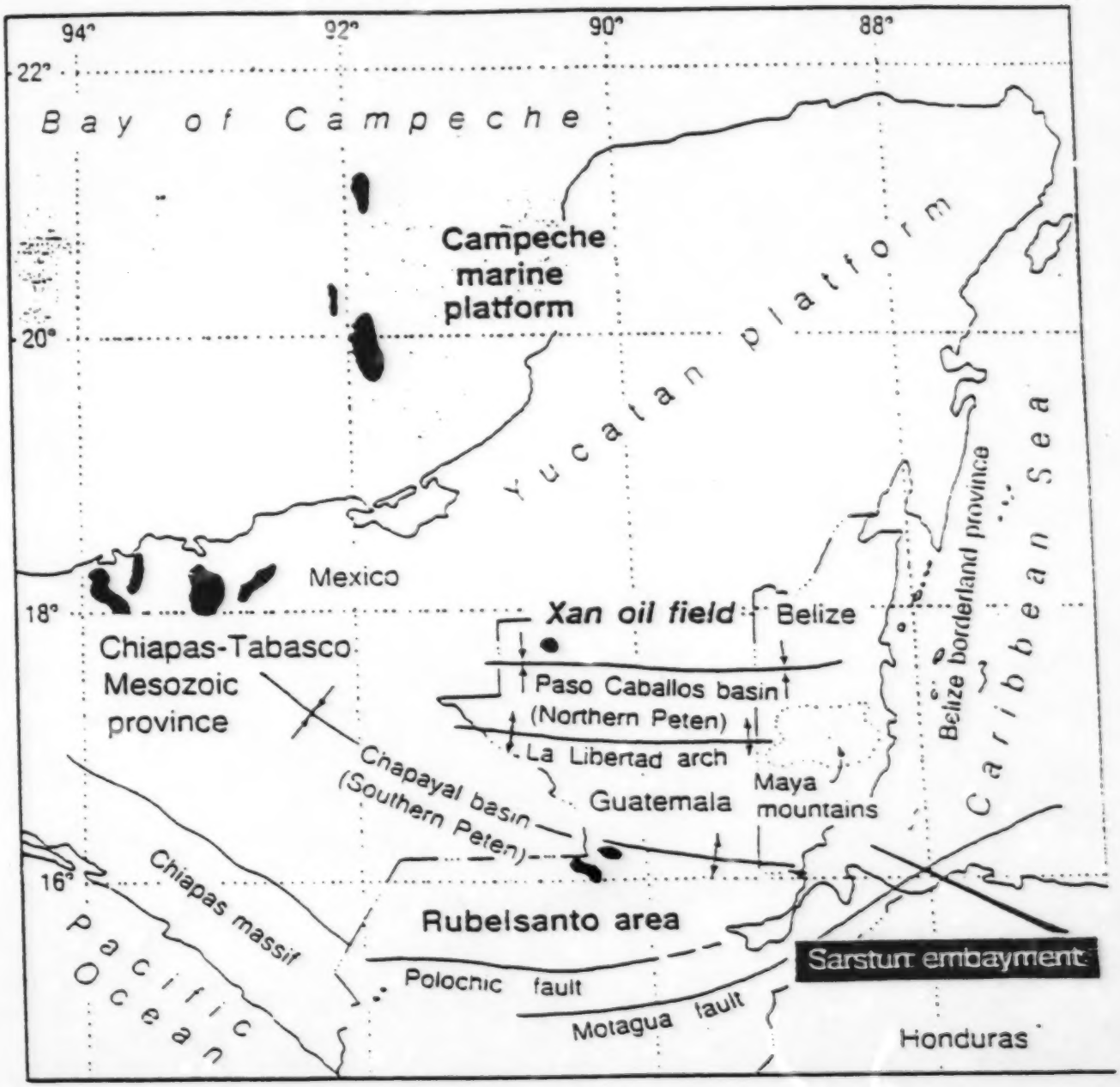
The Amatique basin has a lot of potential but it has not been explored extensively. Shell Explorations has initiated an exploration program in search of a shale reservoir.

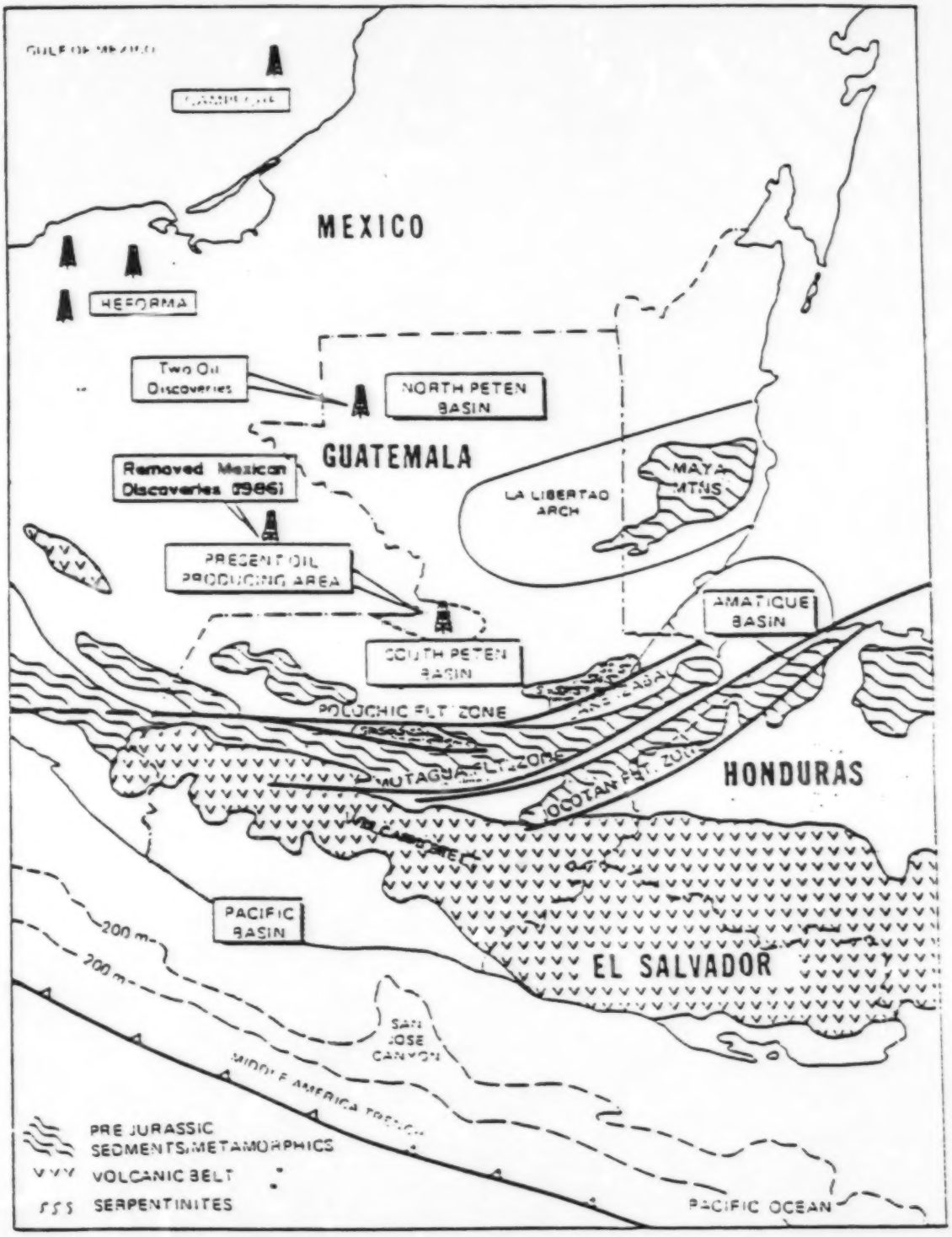
The Pacific basin is the least explored and apparently it has structures with some petroleum potential. Its closeness to a subduction plate leads technicians to believe that it may contain gas.

FOR FURTHER INFORMATION

The technical files of the General Directorate of Hydrocarbons of the Ministry of Energy and Mines contain information that is available if costs of reproduction are paid. For example:

- **Geology:** Information on 82 drilled wells which include electric registries, final reports, geochemical studies, formation tests and nucleus samples.
- **Geophysics:** Approximately 1900 Km. of seismic lines. 20% correspond to the Chapayal basin, 26% to the Paso Caballos basin, 47% to the Pacific basin and 7% to the Amatique basin.
- **Other information:** There are magnetometry and gravimetry drilling reports as well as information packages that were processed by Norconsult that are available for sale.


94°
92°
90°
88°
22°
20°
18°
16°
Bay of Campeche
Campeche marine platform
Yucatan platform
Caribbean Sea
Belize borderland province
Mexico
Xan oil field
Belize
Chiapas-Tabasco Mesozoic province
Paso Caballos basin
(Northern Peten)
La Libertad arch
Chapayal basin
(Southern Peten)
Guatemala
Maya mountains
Chiapas massif
Rubelsanto area
Sarstun embayment
Polochic fault
Motagua fault
Honduras
Pacific Ocean


MEXICO
REFORMA
Two Oil Discoveries
NORTH PETEN BASIN
GUATEMALA
Removed Mexican Discoveries (1986)
PRESENT OIL PRODUCING AREA
LA LIBERTAD ARCH
MAYA MTNS
AMATIQUE BASIN
SOUTH PETEN BASIN
POLOCHIC FLT ZONE
MOTAGUA FLT ZONE
HONDURAS
PACIFIC BASIN
200 m
200 m
EL SALVADOR
SAN JOSE CANYON
PRE JURASSIC SEDMENTS/METAMORPHICS
VOLCANIC BELT
SERPENTINITES
PACIFIC OCEAN

4. *LEGISLATION INFORMATION*

Petroleum operations are governed by the HYDROCARBONS LAW, decree # 109-83, which came into effect on September 16, 1983. Van Meurs & Associates, a Canadian consulting company was retained to assist in the formulation of this law.

HYDROCARBONS LAW

Different types of contracts can be put into effect under this law:

I. Surface Reconnaissance Permits

II. Production Participation

a) Exploration and Exploitation

b) Exploitation

c) Seismic Option

III. Petroleum Services

I. SURFACE RECONNAISSANCE PERMITS

Permits may be obtained from the Ministry of Energy and Mines to undertake surface reconnaissance operations in any part of the national territory for up to one year, with a one year extension. The objective is to obtain topographical, geological, geophysical or geochemical information, and it includes authorization to drill wells with depths that do not exceed 200 meters. The information obtained must be submitted to the Ministry at no cost to them and the authorization extended is not exclusive and gives no rights to explore or exploit hydrocarbons. The

authorization application which is presented to the Ministry outlining the work and the budget to be performed, will be authorized by the Ministry in approximately thirty days. The information obtained will be confidential for a period of two years. It is one of the most expeditious ways to initiate activity in the country.

II. PRODUCTION SHARING CONTRACT

a) Exploration and Exploitation Contracts

This type of contract has a duration of twenty five years. It begins with a six year exploration period which starts from the date that the contract comes into effect. This is followed by an exploitation period for each area that is declared commercial. This stage begins on the date the commercial field is established. This contract contains an Accounting Annex, which establishes the recoverable costs, expenditure systems and control procedures that the contractor must follow to determine government participation as indicated in article #66 of the Hydrocarbons Law. Upon signature of the contract, a $10,000.00 administrative fee must be paid; this fee, as well as those corresponding to the cost of the lease for the concession and training of Guatemalan personnel are considered as recoverable costs.

CONTRACT AREA

It may contain up to 6 blocks of 50,000 inland hectares and 80,000 hectares offshore. The exploration area cannot be larger than 300,000 inland hectares or 480,000 offshore.

The exploration period is divided into:

1) **Obligatory Drilling Phase**. It has a three year duration in which seismic work is developed to identify the best prospects. Drilling one well during this period is obligatory.

2) **Optional Drilling Phase**. This phase encompasses from the fourth to the sixth year. If this stage is accepted it is an obligation to drill an exploratory well each year.

At the end of the fifth contractual year, 50% of the original area must be returned and 100% must be returned at the end of the sixth year. The exception are exploitation areas. Each exploitation area cannot exceed 10,000 hectares unless the area of discovery is larger.

PRODUCTION

The contractor can freely dispose of production, with the exception that, if the State so requires, he must sell a prorated amount to satisfy the country's internal demand.

PETROLEUM PRICES

The price for each type of petroleum produced in Guatemala is determined by international market prices. These prices are adjusted for quality (API Gravity and sulphur content), for transportation fees, storage and handling. These factors determine the price of crude from each producing field.

TAXATION

All costs and expenses incurred in one period are income tax deductible. All losses incurred in one period can be transferred to successive periods until they are totally deduced. All taxes are payable in U.S. dollars or when the income is derived from international sales, the equivalent in Quetzales, for taxes, charges and administrative fees that are applicable under the following clauses of the law: 34 (income taxes), 35 (stamp and official paper taxes, contract subscription and transfer of rights) and 45 (income: administrative fees, service fees for approved exploitation area and annual surcharges by hectare).

CONTRACTUAL OBLIGATIONS

The contractor must meet the following main clauses:

Royalties

To pay the State, prior to any cost recovery, royalties which will amount to 20% of the net production of 30° API petroleum (increasing or diminishing by one percent for each API degree more

or less than 30°) but never to amount to less than 5%. A special royalty of 35% will be applied to the production coming from fields not declared commercial.

Production Participation

Hydrocarbons that can be shared by the government and the contractor are constituted by net production less royalties and recoverable costs. Each contract will establish the scale of hydrocarbon production participation that can be shared, and which is based on the production volumes, increasing the percentage to the State as production increases, with a minimum of 30% for the State.

PROTECTION OF THE ENVIRONMENT

The contractor must implement all security measures, according to international petroleum industries norms, that are necessary for the protection of people and goods, and to avoid contamination by meeting all legal applicable dispositions and stipulations of the contract.

If some contamination does occur the contractor will be responsible for its elimination, will be subject to applicable fines, and will be liable for damages and losses caused to the State or third parties.

TRAINING OF GUATEMALAN PERSONNEL

To train Guatemalan personnel under his employment in the required operations and techniques necessary for the efficient management of petroleum operations. (negotiable)

PREFERENCE

It is preferable to use Guatemalan local goods and services and to annually submit a detailed report.

ROADS AND SOCIAL BENEFIT WORKS

The contractor must maintain highways and roads that he utilizes within the contract area in good operating condition, as well as to undertake welfare and social assistance work for employees, their families and the population surrounding the contract area; these include payment for medical services, paramedics and teaching personnel, and the construction of a school and a health clinic. (negotiable)

INDEMNIZATION

The contractor must, according to the laws of the Republic of Guatemala, pay indemnization to the owners of properties or to any other person to whom damage or loss is caused as a consequence of contractual activities, whether they are caused by the contractor himself or by his petroleum services related subcontractors.

OPTION TO GUATEMALANS

The contractor must give natural Guatemalans an option to participate in the petroleum operations, with capital participation that represents, as a minimum, 5% of the total worth of the contracted work in the first three years of the contract.

b) **Exploitation Contract**

The option to subscribe an exploitation contract is available, and it is initiated by the interest manifested by the company in proceeding to recondition or enhance wells that have been drilled in the past.

The contract area can have a maximum of 150,000 hectares and the contract is composed of two phases:

Evaluation Phase - To determine the commercial viability of the field. This phase is for one year and extensions may be requested.

Production and Development Phase - It is initiated when the field is declared commercially viable and it continues until the termination of the contract.

Most of the conditions established in this contract are the same as the ones in the previous contract, but there is a commitment to drill a development well every year, during the first four years, until completing the development of the field.

Exploration activities may be carried out, if this activity is considered within the contract area. If this is the case, the contractor will have certain commitments to recondition wells in some areas while in others the obligatory drilling and optional stages will be applied.

c) **Seismic Option Contract**

This is another variation of the production participation contract. This option was published in the Official Gazette on November 20th 1991 and it facilitates the acquisition of areas for petroleum activities.

As in the exploration and exploitation contracts, there is an initial six-year period divided in two stages: obligatory drilling and optional drilling; with the difference that in the first stage, the first two years are for indirect surface exploration, thus giving the contractor the opportunity to obtain more information that will allow him, up to two months before the beginning of the third year, to make the decision to continue the third year or to withdraw.

In case the contractor decides to proceed with the third year, all phases and aspects related with obligatory and optional drilling obligations will be applied, the same as in the participation and normal production contracts.

The seismic option is different to the surface reconnaissance permit in that the contractor has exclusive rights to the area in which he commits to work, therefore, if he shows interest in continuing with the third year, he can do so in the originally selected area and no other contractor has an option on it.

It is important to emphasize that this seismic option is applicable only in areas predefined and preselected by the Ministry of Energy and Mines (MEM), generally areas where less seismic information is available.

Permanent Summon

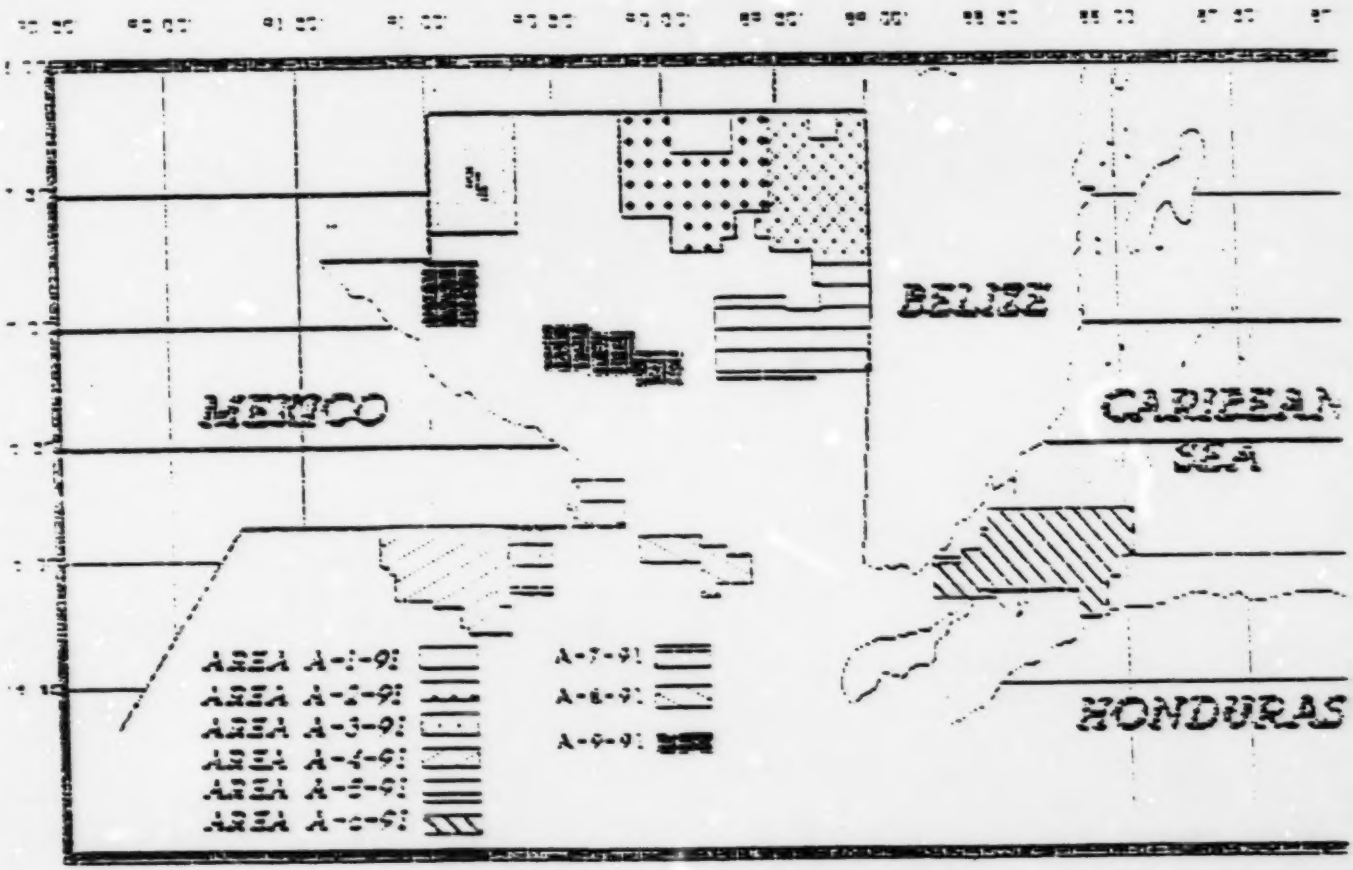
The normal procedure established by the Hydrocarbons Law dictates that any company that submits a proposal must wait for Ministerial approval and for the establishment of a bidding date. This procedure usually takes a long time. In the Permanent Summon scheme, the MEM will have a permanent ongoing tender to allow for bidding for the concession areas during the last week of February, June and October of every year.

This process began with the announcement at the end of 1991, of the tender of nine concession areas. Two for exploitation, six for seismic option and one area for production participation.

It is expected that this system will be faster and that tender offers may be approved in 30 days and contracts signed with the Ministry of Energy and Mines in the following three weeks.

III. PETROLEUM RELATED SERVICES

Companies specializing in petroleum related services such as drilling, cementing, geophysics, electric registries, etc., can register in the Petroleum Registry and offer its services to companies that are presently operating under contract. There are special regulations that govern all aspects related to authorizations and requirements to operate as a petroleum services related contractor.



AREAS DE LICITACION 1991

1991 TENDER AREAS

5. *RETURN ON INVESTMENT*

The Accounting Annex establishes the necessary procedures for the presentation and content of budgets that must accompany the work programs. It also contemplates the acquisition of goods and services, inventories, cost revisions and audits, and investments and expenditures. These factors will establish the recoverable costs, the government participation and the contractors remuneration. The contractor must clearly understand the contents of the Accounting Annex so that he can be guaranteed that his recoverable costs are approved and thus avoiding complications and delays in meeting his obligations.

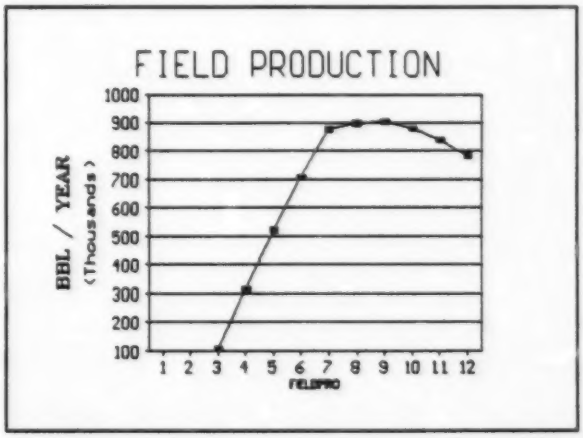
In many instances, being unaware of the established procedures in the Accounting Annex, as well as not submitting the required periodic reports on time and in the manner established by the Hydrocarbons Law, can result in a company experiencing delays in meeting their established goals in their work programs. Hiring knowledgeable and experienced personnel to manage all legal requirements as well as those of the Accounting Annex, is a measure that can bear excellent results.

The contractor begins to obtain a return on his investment the moment he discovers petroleum and the field can be put into production. The quality of petroleum found (API degrees and sulphur content), will dictate the reference price to be applied towards royalty payments, as well as the amount applicable to the reduction of recoverable costs account.

Experience shows that, if petroleum is found, a return on the investment begins in the 4th. or 5th. year. If the development wells are drilled on time, a 100% return on the investment is possible at the end of the 6th. year, with a internal return rate that will depend on the production of the field and the petroleum quality.

In Annex A, an investment performance example is developed taking average values from companies that have recently operated in the country. The procedure established in the production participation contract is followed.

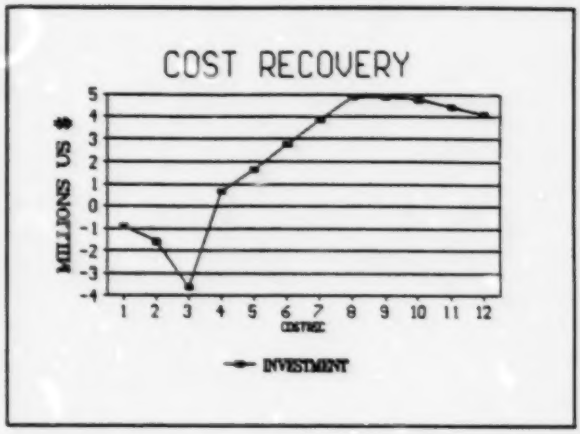
A period of twelve years is analyzed, taking as basic data the fact that the company drills one successful 3000 meter exploratory well. The company develops the field by drilling four wells. The supposed production is shown in the adjacent graph.



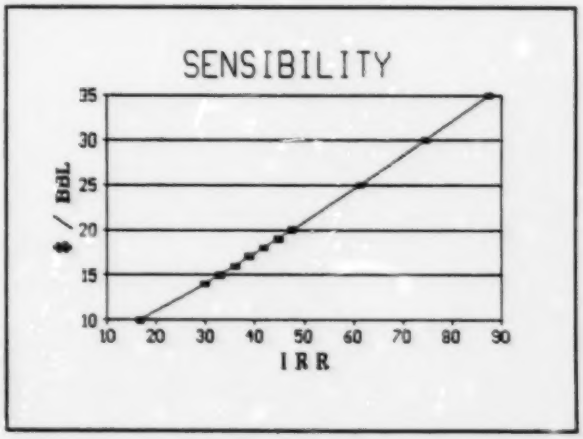
The investment during the first three years of obligatory perforation is of U.S.$ 7.5 M. and the investment is fully recovered at the end of a six year period and a profit is made even after paying U.S.$ 2.8 M. The cash flow during the 12 years shown,

represents a 32.9% internal rate of return with an assumed price of the produced petroleum of U.S. $ 15.00/bbl.

When the investment is fully recovered, the formula of production sharing begins in which the government obtains a participation based on a contract negotiated pre-established scale of 30% as a minimum and in which, because there is a profit, the contractor must initiate income tax payments.



To determine the effect that the price of crude has over the internal rate of return, a sensibility analysis was formulated and the adjacent graph shows the results. It can be appreciated that an increase of U.S. $ 2.00/bbl for the price of crude has a very positive effect. And it rapidly increases the internal rate of return to 38%.



6. ADDITIONAL REGULATIONS

The Hydrocarbons Law and its regulations must be fully understood by the contractor, as they will clearly establish his rights and obligations. Not understanding them, often means not complying with them or doing so extemporaneously. This specially applies to the submission of work programs and periodic reports. Following is a list of regulations which govern other activities.

Another contractual formula is the **PETROLEUM SERVICES CONTRACTS** in which special regulations are detailed which govern all aspects related to petroleum services. These services are requested by the Ministry of Energy and Mines by means of tenders or invitations to submit offers for specialized services.

The **SUMMON REGULATION** regulates all proceedings that must be followed for the celebration of exploration and exploitation contracts. It also details information that must be submitted to be allowed to participate in tenders. It also regulates procedures for qualifying, and contract adjudication and approval.

The **REGULATION TO OPERATE AS CONTRACTOR** governs the operations of petroleum services contractors or subcontractors who perform services such as well drilling, well tube cementing, deposit evaluation and geophysical evaluations, camp construction,

etc. It not only indicates examples of services but it also establishes the rules that must be met, such as registering in the Petroleum Registry.

The **REGULATION FOR THE APPLICATION OF THE TRIBUTATION REGIME** exists for the purposes of taxation and allowable deductions. This regulation governs all aspects relating to income tax and the ways to deduce exploration expenses and investments that carry social benefits.

All regulations mentioned above can be easily obtained in one document which also contains the Hydrocarbons Law and its Regulations.

INFORMATIVE CIRCULARS. The General Hydrocarbons Directorate has published a series of informative circulars that regulate activities that are not clearly defined by the law. It is very convenient to obtain a copy of these and to carefully analyze them should a contractor obtain an exploration or exploitation contract.

STATIONARY TRANSPORTATION SYSTEM CONTRACT One of the problems a contractor might encounter is how to transport the produced petroleum to the site where it can be shipped or marketed in an efficient and economical fashion. An existing pipeline may be utilized by other companies (Article 65 of the Hydrocarbons Law) over and above the ones that have a contract to do so. This contract contemplates the fees and mechanisms that are applied for

the transportation of crude. It is most useful to obtain a copy of this legal instrument from the Ministry of Energy and Mines.

MODIFICATIONS TO THE REGULATIONS

With the purpose of expediting administrative procedures and to simplify some requirements, the Ministry of Energy and Mines published on November 20th., 1991 in the National Gazette, modifications to articles 61, 62, 63, 67 and 76 to the Regulations of the Hydrocarbons Law. They are the following:

ART. 61 - Preliminary Block Selection

A Government Decree stipulates that the selected site will have a permanent character. (Preliminary selection no longer exists).

ART. 62 - Suggestions

Must be made directly to the Ministry of Energy and Mines.

ART. 63 - Revision

The Ministry of Energy and Mines can revise the selected site at any given moment.

ART. 67 - Boundary Markers

At the requirement of the Ministry of Energy and

Mines they will be placed only when it is considered indispensable.

ART. 76 - **Approval of the selected site or sites to be returned**

The only requirement is that the areas to be selected or returned must have their sides oriented north-south and east-west. In the case of selected areas, they must cover the vertical projection of the deposit.

On the same date, the dispositions of the SEISMIC OPTION CONTRACT and the SEISMIC OPTION MODEL CONTRACT were published.

7. *PETROLEUM QUALITY AND PRICES*

To date, 82 petroleum wells have been drilled in Guatemala, of which 19 were producers, three were injectors and the rest have been abandoned as dry or due to mechanical problems. In the Paso Caballos basin, the Xan-1 and Xan-2 wells are producing 17° API crude from a volumetrically evaluated oil field with probable reserves of 80 million barrels.

The Chapayal basin, located in southern Petén and northern Alta Verapaz has been the most explored and exploited area

of the country. The recoverable reserves in this basin have been estimated in 42 million barrels. 15 million with API gravity between 22° and 45° have already been produced. This basin composed by the Rubelsanto, Chinajá Oeste, Caribe, Tierra Blanca and Yalpemech fields is presently producing.

The Amatique and the Pacific sedimentary basins have been the least explored, and the information available for them is limited.

PRODUCTION

The petroleum production in Guatemala comes from five commercial fields: Rubelsanto, Chinajá, Caribe and Tierra Blanca encompassed in contract No. 1-85 and the Xan field in contract No. 2-85. There are 14 producing wells in these fields, with an approximate production of 5400 bpd. The accumulated production of the country in 1990 was 1.4 million barrels.

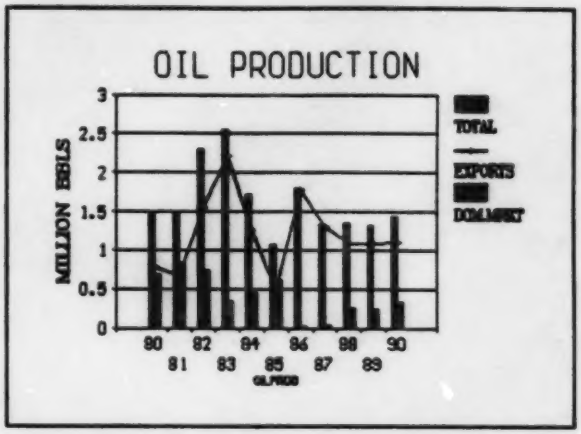
Part of the petroleum produced is destined for domestic consumption and is directly used as fuel for the electrical generation company and the cement company. The rest is exported due to the lack of refining capacity in the country.

The following chart shows the country's petroleum production during the last ten years:

OIL PRODUCTION

(Millions of Barrels)

YEAR	TOTAL	EXPORT.	DOM. MARKET
1980	1.5	.9	.6
1981	1.5	.7	.8
1982	2.3	1.6	.7
1983	2.5	2.2	.3
1984	1.7	1.2	.5
1985	1.0	.5	.5
1986	1.8	1.8	0
1987	1.3	1.3	0
1988	1.3	1.1	.2
1989	1.3	1.1	.2
1990	1.4	1.1	.3



QUALITY AND PRICES

The price of the produced petroleum is established on a monthly basis, according to its characteristics and the procedures established in the Hydrocarbons Law (Art. 151).

The following chart shows produced oil prices and its characteristics during October 1991. The National Crude Petroleum is a mixture of oils processed in Rubelsanto.

PROCEDENCE	CHARACTERISTICS	PRICE US$/BBL
National Crude Petroleum	23.9° API - 2.98%S	16.34
Rubelsanto	25.9° API - 2.94%S	13.42
Chinajá	31.1° API - 2.52%S	15.19
Caribe	20.7° API - 3.27%S	11.68
Tierra Blanca 2	21.0° API - 3.27%S	11.77
Xan	17.2° API - 6.10%S	2.74

8. *INFRASTRUCTURE AND ORGANIZATION*

The country's principal petroleum infrastructure includes a processing plant located at Rubelsanto, a 235 Km. pipeline and a storage facility at Puerto Santo Tomás de Castilla. All these installations were completed in 1979.

Recently, a small refinery was installed at the Municipality of La Libertad, Department of El Petén. Its main purpose is to process crude produced from contract 2.85. Initial capacity of this mini-refinery is of 2000 bpd, but it can be increased to 10,000 bpd. Due to technical problems, this plant has not yet initiated its commercial production.

The Santo Tomás de Castilla port is the most suitable to handle petroleum exports because of its closeness to the producing fields and its location in relation to the consuming markets. This port has adequate petroleum handling facilities, but it will expand

its installations to increase the number of ships it can service.

A 17000 bpd Texaco operated refinery exists in Escuintla Department. Its design does not allow for it to process Guatemalan crude and its capacity is practically saturated.

ORGANIZATION

The Ministry of Energy and Mines (MEM) is responsible for all energy related matters. The General Directorate of Hydrocarbons (DGH) is a dependency of the MEM, and the Petroleum Development Department (DDP) supervises, regulates and authorizes all petroleum related activity.

The relationship between private companies and the Government begins directly at the Ministry of Energy and Mines. Nevertheless, it is convenient to establish a fluent and permanent link with the DGH, as there are some procedures, that according to the law, can be directly coordinated with them. When it is not necessary to deal with the Ministry of Energy and Mines, this link can assist and expedite procedures.

It is important to understand that prior to initiating any petroleum operation, an inscription must be completed at the Petroleum Registry and the Mercantile Registry.

The Petroleum Registry is a dependency of the Ministry of Energy and Mines and transactions with them are usually expeditious; however, the inscription at the Mercantile Registry, a dependency of the Ministry of Economy, must be initiated well in advance, as it is more time consuming and it can delay contract signing procedures.

The National Petroleum Commission, is an advisory body to the Ministry of Energy and Mines and must emit opinions prior to the approval of any work plan and annual budget programs, transactions for royalties payments, agreements on the price of crude, approval for training programs, etc.

The Legal Department when so required by the Ministry, is commissioned to resolve all legal related matters and to interpret the Law and its regulations.

The Audit Department supervises and controls the correct execution of all issues established under the Accounting Annex on behalf of the contractors. It also calculates royalties and the control of recoverable costs.

9. SHORT TERM PERSPECTIVES

The interest in petroleum exploration in Guatemala is tied more to international petroleum prices than to any other

conditions, including the law itself which allows for petroleum activities with a clear definition of rights and obligations and provides for adequate treatment to investors.

The recent stability of international petroleum prices permits the assumption that in the short term (1 year), the price of Guatemalan crude will fluctuate between U.S. $16.00 - $18.00/bbl and thus the profitability of the investment could rise to 42%.

The seismic option and the permanent summon, if managed with adequate efficiency by the Ministry of Energy and Mines, will allow for more companies to become involved in indirect exploration. This situation will increase the amount of information on the least explored areas and will encourage interest in them in the short term. Nevertheless, the most important information on the subsoil is only obtained when drilling, which is not likely to occur for two years.

In the petroleum services sector, in order to cover the country's needs in the consumption of refined products, it will be important to undertake activities in seismic work and infrastructure construction in general, such as pipelines and storage facilities.

It is possible that within a two year period, there will be tender calls for the construction of a petroleum products

pipeline from San Jose Port to Guatemala City as well as a petroleum products storage facility in the Pacific coast and an LPG storage facility in the Atlantic coast.

In the medium term (more than 5 years), it is probable that the international petroleum price will increase, thus incentivating more companies to drill in Guatemala. This means that additional geological and seismic information can be obtained in the next few years increasing the drilling success possibilities. It is also expected that with more involvement of petroleum companies, the indirect costs will be reduced as they can share infrastructure costs.

The exploration and exploitation of natural gas can be very profitable as it can service a large potential market for electrical generation and for fuel used in the industrial sector. If natural gas deposits are discovered the development of the Petén Department can be greatly stimulated.

The marketing of crude is an aspect that can be greatly enhanced if small refineries are installed that can process national crude. This situation will also allow for the obtention of other petroleum products which, like gasolines, can be marketed in the domestic market.

10. HOW TO SUBMIT A PROPOSAL

A proposal to carry out petroleum activities can be the result of a summon (tender call) or the express desire that a company has in a particular area. If the Ministry considers that the proposal is feasible, it can become a summon. With the permanent summon procedure, it would be considered on the next closest date assigned for that purpose.

In general terms, a declaration of interest is submitted in legal sealed paper precisely identifying the blocks of interest. The interested party must also submit detailed information on his company indicating who his legal representative is in Guatemala, what work they propose to execute and the proposed financial scheme, as well as a proposal for State and contractor participation the moment that shareable hydrocarbons exist.

The company must accompany all documentation that accredit their legal status and the documentation of constitution of the Guatemalan company. The company must prove its financial and technical capability as well as proving that it has been inscribed in the Guatemalan Mercantile Registry.

If the proposal is the result of a summon, the company must submit proof that it has paid the administrative fee and the performance bond.

The Summon Regulations, (articles 9, 10, 11) expressly detail all the documentation that must be submitted.

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A N N E X I A

	Well	3000m	4.0 millions US$	
BASIC	Seismic	300km	1.3 millions US$	IRR
	Oil	26 API	15 US$/BBL	32.9
DATA	Royalties	16 %		

ANNUAL INVESTMENTS
MILLION US $

	COMPULSORY			OPTIONAL								
EXPENDITURES	1	2	3	4	5	6	7	8	9	10	11	12
Administrative	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.3	0.3
Seismic	0.5	1.0		0.2	0.2	0.2						
Exploratory Well		0.1	3.9									
Development Wells				2.0	2.0	2.0	2.0					
Operating Expenses	0.1	0.2	0.6	0.6	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.3
Total Expenditures	0.9	1.6	5.0	3.3	3.0	2.9	2.7	0.8	0.8	0.8	1.0	1.0
Acum. Expenditures	0.9	2.5	6.1	9.5	1.9							
Recoverable Costs			1.4	4.0	6.6	8.9	11.1	11.2	11.4	11.1	10.6	9.9
Shareable Hyeroc.(100%)					3.6	6.0	8.4	10.5	10.6	10.2	9.6	8.9
Production/YEAR MMBBL			0.1	0.2	0.5	0.7	0.9	0.9	0.9	0.9	0.8	0.8
Value of Production			1.6	4.7	7.8	10.6	12.2	12.5	12.6	12.2	11.6	11.3
Royalties			0.2	0.8	1.2	1.7	2.1	2.2	2.2	2.1	2.0	1.9
Shareable Hyeroc.(30%)					1.1	1.8	2.5	3.2	3.2	3.1	2.9	2.7
Income Tax(34%)					0.9	1.4	2.0	2.5	2.5	2.4	2.2	2.1
NET CASH FLOW	-0.9	-1.6	-3.6	0.7	1.7	2.3	3.9	4.7	4.9	4.8	4.4	4.1

INTERNAL RATE OF RETURN = 32.9 %